

ARAB REPUBLIC OF EGYPT

**MINISTRY OF WATER RESOURCES AND IRRIGATION
MECHANICAL AND ELECTRICAL DEPARTMENT
ON BEHALF OF
NORTH SINAI DEVELOPMENT ORGANIZATION**

NORTH SINAI DEVELOPMENT PROJECT

**CONVEYANCE SYSTEM OF
EL SHEIKH GABER EL SABBAAH CANAL
BETWEEN KM 118.560 AND KM 132.500**

TENDER DOCUMENTS

VOLUME I (3)

PARTICULAR CONDITIONS OF CONTRACT

(month) 200x

Volume I (3) Particular Conditions of Contract

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Volume I (3) Particular Conditions of Contract

(Clauses in this Volume I (3) shall be read in conjunction with the Clauses with the same number of Volume I (1). The contents of the Clauses of this Volume I (3) are additions or replacement to those Clauses in Volume I (1). In case of any contradiction between the two the present Volume I (3) shall have the precedence.)

Article 6 Tender Bond, which is Submitted with the Tender

Each Tenderer shall enclose with his Tender, a Bank certified cheque or a Banker's guarantee as a Tender Bond (Bid Bond) issued by a first class Egyptian Bank acceptable to the NSDO for an amount of 2 % of the Tender Price.

The period of validity of the Tender Bond shall be at least 180 days.

In the event of the Tenderer withdrawing his Tender before the expiration of the period of validity previously stated, or failing to execute a formal Contract, the amount of the Tender Bond in respect of the Tender shall be confiscated in favour of the NSDO.

The successful Tenderer shall present a similar letter of guarantee as a Performance Bond as a guarantee for his proper performance of the Contract, amounting to 10% (ten percent) of the Initial Contract Price. Said Performance Bond has to be presented within 28 days of receipt by the Contractor of the Letter of Acceptance of his Tender, but not later than the date of expiration of the period of validity of the Tender Bond, or any agreed extension hereto.

The NSDO will return the Tender Bond to the Successful Tender on receipt of the Performance Bond.

The Tender Bonds of unsuccessful Tenderers will be returned as soon as the successful Tenderer has provided the Performance Bond, however not later than the date of expiration of the period of validity of the Tender Bond or of any agreed extension hereto.

Article 13 Opening the Tender Envelopes

(1) Two Envelope System of Tender

The evaluation of the Tenders and selection of the successful Tenderer shall be conducted in two steps using the Two Envelope System. Each Tender is submitted in two envelope, i.e., Technical Envelope and Financial Envelope, as described below. First, only the Technical Envelope will be opened and evaluated by the Technical Committee of the NSDO. The result of the evaluation for each Tender shall be either "passed" or "failed". Then, the Financial Envelope of only the "passed" Tenderers will be opened and the lowest price Tenderer shall be the successful Tenderer.

(2) The Bills of Quantities will be checked arithmetically and in the event of there being any mistakes in the extension of unit rates, the summation of any pages or Bill totals or the carrying forward of any sum, then the Tender shall be amended and the Tender Sum revised accordingly.

- (3) All tender prices will be valued in terms of Egyptian Pounds (L.E.)
- (4) All reservation shall be evaluated in terms of cost and added to the total Tender prices, for the purpose of comparison only. If the successful Tenderer has submitted reservations in his Tender, the details shall be negotiated with him during the Contract negotiations.
- (5) Technical Envelope

Technical Envelope shall comprise the following 2 groups of documents:

Group A

The documents of this group shall become part of the Contract Documents.

- A1) Cover letter (free style, but do not mention the Tender Price.)
- A2) Tender Bond (on Bank's Letterhead)
- A3) Power of Attorney
- A4) Schedule of Technical Data
- A5) Alternative Proposals, if any, together with detailed design documents, drawings and technical specifications.
- A6) Financial Statement of the Tenderer for the last 5 Years
- A6) Experience in Similar Works for the last 10 Years

Group B

The following documents shall be prepared using the Tenderer's own formats. These are required for the purposes of assessing the Contractor's Tender and comparing the various Tenders received. It is not intended that these documents will form part of the Contract between the NSDO and the successful Tenderer.

- B1) An organization chart showing clear definition of powers and duties of each staff in the organization.
- B2) A preliminary but comprehensive network showing the Tenderer's proposed procedure and the programme for constructing the Works in accordance with the Contract, together with such additional information the Tenderer wishes to submit in support thereof.
- B3) A histogram showing staff (managers, engineers and specialized technicians) and labour whom the Tenderer anticipates employing to construct the Works. The histogram shall differentiate direct employees and those employed by the Tenderer's sub-contractors.
- B4) Curriculum Vitae of all staff anticipated to be employed on the Contract.
- B5) A list of the major Construction Plant to be used.
- B6) A list of the works which are anticipated to be sub-contracted.
- B7) A list of all permanent materials showing the proposed sources and suppliers.

(6) Financial Envelope

Financial Envelope shall comprise the following documents, which shall become part of the Contract Documents.

- 1) Tender Form together with the Appendices
- 2) Bill of Quantities
- 3) Detailed Supplementary Schedules (Breakdown of all Tender Rates and Lump Sums)
- 4) Alternative Proposal, if any: The Cost comparative tables compared to the original specifications

Article 30 Fixed Time to Accomplish the Work

Penalties and Delay

Penalties for Shortage in the Earth Works

If the Contractor shall fail to achieve completion of the Works within the time prescribed in these Contract Documents, then the NSDO may allow the Contractor to complete the execution of Works, but then the Contractor shall pay to the NSDO the sums stated below as penalties for such default for any and every week or part of a week which shall elapse between the time prescribed in these Contract Documents and the date certified for completion of the Works. The NSDO may, without prejudice to any other method of recovery, deduct the amount of such damages from any monies in his hands, due or which may become due to the Contractor. The payment or deduction of such damages shall not relieve the Contractor from his obligations to complete the Works, or from any other of his obligations and liabilities under the Contract.

The penalties shall be applied on the basis of one percent (1%) for every week or any part thereof such that the total levy shall not exceed ten percent (10%).

The periods of stopping the works which are covered by granted extensions of time from the NSDO as per the provision of the Contract are not included in the aforementioned delay.

The penalties for delay shall be calculated as percent of the final Contract Price if the NSDO sees that the delayed part of the Work shall prevent making use in the stipulated time of the already executed part of the Work. In case the NSDO sees that the delayed part of the Work shall not prevent making use of the completed part of the Works, then the penalties percentage shall be applied only to the value of the delayed part and at the rate and rules specified above.

The penalties for delay should be promptly imposed on the Contractor as delay happens although no damages occur and without notice or warning. The NSDO will deduct the delay penalties from any payments which are due or may become due to the Contractor.

Article 36 Quantities and Prices

- (1) Valuation Of Variations

All extra or additional work done or work omitted by order of the NSDO shall be valued at the rates and prices set out in the Contract if, in the opinion of the NSDO, the same shall be applicable. If the Contract does not contain any rates or prices applicable to the extra or additional work, then suitable rates or prices paid as far as possible on the same basis as the Contract rates and prices shall be agreed upon between the NSDO and the Contractor.

(2) Power Of NSDO To Fix Rates

Provided that no increase or decrease under Article (1) of this Clause, shall be made unless, as soon after the date of the order as is practicable and, in the case of extra work, before the commencement of the work or within fourteen days thereafter notice shall have been given in writing:

- a. by the Contractor to the NSDO of his intention to claim extra payment or a varied rate or price, or
- b. by the NSDO to the Contractor of his intention to vary a rate or price.

(3) Variations Exceeding 25 Per Cent

If, on certified completion of the Works, it shall be found that a reduction or increase greater than 25% of the sum named in the Letter of Acceptance, excluding all fixed sums, provisional sums and allowance for dayworks, if any, results from:

- a. the aggregate effect of all Variation Orders, and
- b. all adjustment upon measurement of the estimated quantities set out in the Bill of Quantities, excluding all provisional sums, dayworks and adjustments of price, if any.

but not from any other cause, the amount of the Contract Price, shall be adjusted by such sums as may be agreed between the NSDO and the Contractor, or failing agreement, fixed by the NSDO having regard to all material and relevant factors including the general overhead costs of the Contract.

Article 42 Power of Amendment of Works

(1) Variations

The NSDO may order any variation of the form, quality or quantity of the Works or any part thereof or any specified sequence, method or timing of construction provided that the NSDO may give any order, of whatsoever nature, if, in his opinion, a necessity, a circumstance or an emergency has arisen and such order is necessary in the best interest of the Project.

The NSDO shall have the power to order the Contractor to do and the Contractor shall do any of the following:

- a. increase or decrease the quantity of any work included in the Contract,
- b. omit any such work,

- c. change the character or quality or kind of such work.
- d. change the levels, lines, positions and dimensions of any part of the Works,
- e. execute additional work of any kind necessary for the completion of the Works, and
- f. change any specified sequence, method or timing of construction of any part of the Works,

and no such variation shall in any way vitiate or invalidate the Contract but the value, if any, of all such variations shall be taken into account in ascertaining the amount of the Contract Price.

(2) **Orders For Variations To Be In Writing**

No such variations shall be made by the Contractor without an order in writing of the NSDO. Provided that no order in writing shall be required for increase or decrease in the quantity of any work where such increase or decrease is not the result of an order given under this Clause, but is the result of the quantities exceeding or being less than those stated in the Bill of Quantities. Provided also that if for any reason the NSDO shall consider it desirable to give any such order verbally, the Contractor shall comply with such order and any confirmation in writing of such verbal order given by the NSDO, whether before or after the carrying out of the order, shall be deemed to be an order in writing within the meaning of this Clause. Provided further that if the Contractor shall within seven days confirm in writing to the NSDO, and such confirmation shall not be contradicted in writing within fourteen days by the NSDO, it shall be deemed to be an order in writing by the NSDO.

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BETWEEN KM 118.560 AND KM 132.500**

TENDER DOCUMENTS

VOLUME II

BILL OF QUANTITIES

(month) 200x

**Conveyance System of El Sheikh Gaber El Sabbah Canal
Between KM 118.560 and KM 132.500**

SUMMARY AND TOTAL

Pay Item No.	Item of Works	Amount Egyptian Pound	Remarks
CC-0300	No.3 Open Canals		
Total			

**Conveyance System of El Sheikh Gaber El Sabbah Canal
Between KM 118.560 and KM 132.500
Bill of Quantities**

Pay Item	Description	Unit	Quantity	Unit Price L.E	Amount Egyptian Pound
CC-0300	No.3 Open Canal				
CC-0301	<p>Excavation (1) Earthworks in excavation for cutting, removal and driving away of soils that are above the level of embankments, design berms, or the levels defined by the NSDO, or the soils unsuitable for construction works, and which may contain harmful materials, and whether this was in the route of canal or pond areas and swamps in which these canals pass, or the like, and storing excavation and cutting outcome and removing them outside public utilities. This will be carried out according to the drawings, conditions and instructions.</p> <p>The unit price includes and is charged with removal of all obstacles inside the path with the whole width of canal right of way whether visible or invisible and to reach the design levels whether the excavation was in clayey, sandy or gravelly land, or petrified lands, or a mixture of any of them. Leveling the outcome of excavation will be according to the instructions, by an acceptable engineering method and by the mean, which the contractor finds appropriate for operation whether by mechanical machines or manually by labor force.</p> <p>The unit price will be given including everything, by one cubic meter.</p>	Cu.m	1,850,000		
CC-0302	<p>Excavation (2) Earthworks - excavation according to the cross section under the designed embankments level and to the bottom level, or according to cross section, and to store the unnecessary outcome of excavation outside the canal right of way limits on both banks, and in the places defined by the NSDO whatever was the transport distance, and according to the conditions, drawings and instructions.</p> <p>The unit price includes and is charged with cutting trees and removal of weeds, and all kinds of buildings (visible and invisible) confronting the canal section, as well as making replacement irrigation methods, such as culverts, pipes and the like. The contractor is bound to reach the approved and determined levels of the cross section whether excavation was in a petrified soil,</p>	Cu.m	1,660,000		

Bill of Quantities

Pay Item	Description	Unit	Quantity	Unit Price L.E	Amount Egyptian Pound
CC-0302	<p>and whatever costs the work require for its execution. Also, work rates are included in water draining, construction, maintenance and removal of the required dams.</p> <p>Also, the unit price includes and is charged with trimming excavation, leveling the bottom, side slopes, berms and embankments to the levels and according to the approved cross section, by the means which the Contractor regards appropriate for manual or mechanical operation. It is absolutely impermissible to carry out any excavation works, which are more than the approved cross section, because this is connected with lining works.</p> <p>The unit price includes and is charged with all necessary tests required to determine the suitability of soil for lining as well as standard compaction tests, and according to what is mentioned in the special and general conditions. The unit price is to be given by one cubic meter.</p>				
CC-0303	<p>Fill (1)</p> <p>Earthworks - backfilling on layers to establish and form the backfilling bearing the lining (the core) required for establishing and forming the canal according to the conditions and specifications, and in the cases requiring that and approved by the NSDO. The unit price includes and is charged with hauling the soil suitable for that purpose from any suitable place, which the tests show its suitability, and to be approved by the NSDO, and according to what is mentioned in the conditions and specifications.</p> <p>The unit price includes and is charged with hauling and emptying for any distance whatever, and all works of compaction, shaking, turning upside down, backfilling in layers, and carrying out quality control tests for the supplied soil of the formed backfilling and all requirements of equipment, machines, spraying water and leveling works. The unit price is to be given including everything by cubic meter.</p>	Cu.m	1,720,000		
CC-0304	<p>Fill (2)</p> <p>Earthworks - backfilling on layers to form embankments, front and back berms, backfilling ponds, moors and swamps in the area according to the drawings, instructions, and to the levels to be defined by the NSDO.</p>	Cu.m	2,270,000		

Bill of Quantities

Pay Item	Description	Unit	Quantity	Unit Price L.E	Amount Egyptian Pound
CC-0304	The unit price includes loading, hauling and emptying for whatever distance, whether work is carried out manually by workers or by machines. The soil used in backfilling should be clean and free from solid blocks and organic materials. Backfilling must be done on layers whose thickness after compaction does not exceed 30 cm (thirty) and according to the technical principles appropriate for the kind of the soil used. The unit price includes and is charged with all works of leveling, spraying with water, making the tests required for standard compaction, according to the specifications. The unit price is to be given including everything by one cubic meter.				
CC-0305	Trimming of Side Slopes of Concrete Lined Canal Earthworks for trimming the water section according to the approved cross section with a thickness within the limits of 45 cm including the total lining thickness according to the drawings and instructions. The unit price includes and is charged with works of excavation, spraying, compacting, water draining (if needed), and leveling the canal internal section to the determined levels, and preparing it for lining, together with storing the outcome of trimming outside public utilities. The unit price is to be given by one cubic meter.	Cu.m	136,000		
CC-0306	Fill with Laterite and Laterite Bedding Earthworks - backfilling required for establishing and forming the laterite bedding according to the conditions and specifications, and in the cases requiring that and approved by the NSDO. The unit price includes and is charged with hauling the soil suitable for that purpose from any suitable place, which the tests show its suitability, and to be approved by the NSDO, and according to what is mentioned in the conditions and specifications. The unit price includes and is charged with hauling and emptying for any distance whatever, and all works of compaction, shaking, turning upside down, backfilling in layers, and carrying out quality control tests for the supplied soil of the formed backfilling and all requirements of equipment, machines, spraying water and leveling works. The unit price is to be given including everything by cubic meter.	Cu.m	2,000		

Bill of Quantities

Pay Item	Description	Unit	Quantity	Unit Price L.E	Amount Egyptian Pound
CC-0307	<p>Laterite Pavement of 0.2m thick on Berms, etc.</p> <p>By Square Meter, Supply and Making Supporting Layer for Embankments of laterite soil with a thickness of 20 cm.</p> <p>The unit price includes and is charged with transport, supply, spreading, spraying with water, leveling and crushing by a steam roller weighing 10 tons, or by steam roller vibrator, and continuing maintenance works till handing over of the works. Work will be done according to the lengths and widths determined by the NSDO, and pursuant to the Specifications of Roads and Bridges Department.</p> <p>The unit price also includes and is charged with all what is required of tests regarded by the NSDO as required for verifying the suitability of the layer after crushing, according to the specification and conditions. The unit price will be given by square meter.</p>	Sq.m	115,000		
CC-0308	<p>Stone Pitching with Mortar Caulking</p> <p>Supply and Making Wet Stone Pitching by Mortar for Lining, of the white kind, which should be clean, solid and free from stains, soft and parasite veins, from approved quarries to be accepted by the NSDO, according to the drawings, and instructions, with mortar composed of 350 Kg (Three Hundred and Fifty) ordinary Portland cement to one cubic meter coarse sand.</p> <p>The unit price also includes making the required pointing after emptying the recessed straight joints. This will be done by a mortar consisting of 700 Kg (Seven Hundred) ordinary Portland cement added to one cubic meter sand.</p> <p>The unit price includes also excavation works with the thickness of pitching, preparing the slopes, scaffoldings, Workmanship, and works of water draining, as well as all what is required for completing the work perfectly according to the specifications. The unit price is given by one cubic meter.</p>	Cu.m	230,000		
CC-0309	<p>Crushed Gravel Bedding</p> <p>Supply and Making Gravel Bedding, with dimensions and, drawings, and according to instructions.</p> <p>The unit price includes and is charged with hauling the crushed gravel suitable for that purpose from any suitable place, which the</p>	Cu.m	3,100		

Bill of Quantities

Pay Item	Description	Unit	Quantity	Unit Price L.E	Amount Egyptian Pound
CC-0309	tests show its suitability, and to be approved by the NSDO, and according to what is mentioned in the conditions and specifications. The unit price is to be given including everything by cubic meter.				
CC-0310	Mortar Lining of 10cm thick Supply and Making a Layer of Mortar from cement and sand at a rate of 150 kg Sulfate Resistant Portland Cement (Type-V) to one cubic meter sand, with a thickness of 10 cm. The unit price includes and is charged with supplying, placement, workmanship and special shuttering, and all requirements to complete the work perfectly, and by the form to be approved by the NSDO. The unit price will be given by one square meter of the layer with a thickness of 10 cm.	Sq.m	464,000		
CC-0311	Polyethylene Sheet (1.5mm thick) Supply and Fix Thin Sheets of Polyethylene with thickness at least 1500 Microns , of the coarse kind under lining and in the places to be defined by the NSDO, in such a manner that the thin sheets cover the canal water section completely with the welding and overlaps, in such a manner be at least 10 cm. The unit price includes and is charged with all works required to complete such process perfectly, as well as all what is required of workmanship and tests. The NSDO must be provided with a sample to approve it before supplying and fixing. The NSDO will have the absolute right to carry out laboratory tests to make sure of the specifications and the quality of these thin sheets, before or after supplying, on the account of the Contractor and in the specialized laboratories to be accepted by the NSDO. The unit price is to be given by one square meter.	Sq.m	461,000		
CC-0312	Concrete Lining (0.25m thick) ck=225kgf/cm ² Supply and Making Mechanical Lining for the Bottom and Side Slopes of Plain Concrete , to the required thickness and at a minimum rate of Sulfate Resistant Portland Cement (Type-V) 300 Kg to one cubic meter of the produced soft concrete. The unit price includes and is charged with supplying, placement, workmanship, and special shuttering, and all what is mentioned in the special conditions for lining works.	Sq.m	339,000		

Bill of Quantities

Pay Item	Description	Unit	Quantity	Unit Price L.E	Amount Egyptian Pound
CC-0312	Also, making the different kinds of joints (expansion, shrinkage and placement joints), and filling these joints with the front and back filling materials (Poly sulfide substance). The unit price also includes the works of leveling surfaces and treatment with chemical substances or the like, constructing stairs in the sites, and with the required widths, according to the drawings, instructions and conditions, and all what is required for completing the work perfectly and the form to be accepted by the NSDO. The unit price will be given by square meter of lining works:				
CC-0313	Concrete Lining (0.20m thick) ck=225kgf/cm ² the same as CC-0312	Sq.m	108,000		
CC-0314	Leakage Test Making Inclusive Tests To Determine the Suitability of the Canal After Lining It , with respect to leakage of water in the reaches which will be defined by the NSDO, and with a length of 500 meters for the one reach measured from the axis of the front and back barrier. The unit price includes and is charged with all what is mentioned in the Special Conditions in the Contract in this concern. The unit price includes also and is charged with making, maintaining and removing barriers, and all what is required to carry out the experiment in the correct form. The unit price is to be given by one experiment.	No.	28		
CC-0315	Reinforced Concrete (1) for other than Bridge Deck, ck=275kgf/cm ² Supply and Making Reinforced Concrete for other than Bridge Deck , foundations, walls, columns, abutments, and piers, consisting of 0.8 M3 gravel + 0.4 M3 coarse sand + 350 Kg Sulfate Resistant Portland Cement (Type-V), and reinforcement with steel bars No. 52 of at least 50 Kg in the cubic meter and according to the drawings. The unit price includes supply, workmanship, scaffolding, wooden shuttering, mechanical mixing, placement, compacting, surface leveling and spraying water for a period of at least 15 days after placement according to the specifications. The unit price includes also all work requirements of excavation, backfilling, leveling, trimming, compaction, and all works of water draining by the appropriate means and methods, as well as construction,	Cu.m	6,200		

Bill of Quantities

Pay Item	Description	Unit	Quantity	Unit Price L.E	Amount Egyptian Pound
CC-0315	maintenance and removal of barriers, making the required quality tests to make sure of concrete endurance. Unit price is to be given by one cubic meter.				
CC-0316	<p>Reinforced Concrete (2) for Bridge Deck, ck=275kgf/cm2</p> <p>Supply and Making Reinforced Concrete for Bridge Deck, Caps, Beams, Ceilings, Slabs, Blinds, Passageways, Handrails and the like, consisting of 0.8 M3 gravel +0.4 M3 coarse sand + 350 Kg Sulfate Resistant Portland Cement (Type-V). Reinforcement will be steel bar No. 52 of at least 130 Kg in cubic meter, and according to the drawings, instructions and specifications.</p> <p>The unit price includes and is charged with supply, workmanship, scaffolding, and special wooden Shuttering, which after placement produce a plain concrete. Application therein is made by means of Plywood boards, together with forming chamfers, correcting edges, and using appropriate equipment to reach even edges and using bolts for the shuttering, and treating joints and edges with putty, and painting all surfaces of the wooden shuttering adjacent to the concrete with a material accepted by the NSDO, and which gives smooth surface to the concrete. Also, the unit price includes mixing, placement, compacting, surface leveling and spraying water for a period of at least 15 days after placement, or by chemical substances to be accepted by the NSDO. Furthermore, the unit price includes and is charged with supply, making, and fixing iron angles for entrances, joints, and sidewalks size 100x100x10 mm, and also the horizontal isolating layers composed of two layers of tarred canvas, and the vertical of wood filler boards 20 mm thick, and according to the drawings, instructions and specifications. The unit price is to be given by one cubic meter.</p>	Cu.m	1,000		
CC-0317	<p>Fino Concrete, 275kgf/cm2</p> <p>Supply and Making Fino Concrete, required for protecting the surfaces of reinforced concrete, sidewalks, floorings, as well as wrapping pipes and all purposes. It consists of 0.8 M3 fine gravel + 0.4M3 sand + 350 Kg Sulfate Resistant Portland Cement (Type-V). The unit price includes and is charged with supplying, workmanship, scaffoldings, and special wooden shuttering which after placement</p>	Cu.m	100		

Bill of Quantities

Pay Item	Description	Unit	Quantity	Unit Price L.E	Amount Egyptian Pound
CC-0317	produce a smooth concrete. The application therein is made by means of plywood boards, together with forming the chamfers, correcting the edges, and using bolts in the shuttering, and making joints, and all what is required of works, materiel, equipment and instruments, to carry out the work perfectly, and according to the drawings, instructions and specifications. The unit price is to be given by one cubic meter.				
CC-0318	Plain Concrete, 180kgf/cm ² Supply and Making Plain Concrete for Foundations , consisting of 0.8 M3 gravel +0.4 M3 sand +250 Kg Sulfate Resistant Portland Cement (Type-V). The unit price includes supply, excavation, backfilling, leveling, compacting, patterning, making wooden shuttering, mechanical mixing placement, compaction and surface leveling, spraying water for a period of at least 15 days after placement. Also, draining water by the appropriate means and method, and construction, maintenance, and removal of barriers, as well as carrying out the required quality tests to make sure of endurance of concrete. Unit price is to be given by one cubic meter.	Cu.m	800		
CC-0319	Bitumen Coating Supply and Making a Paint Two Heavy Coats with Oxidized Bitumen , for walls and concrete works adjacent to the backfilling, according to the specifications and conditions. The unit price includes and is charged with cleaning these walls thoroughly, rubbing them with wire brushes before painting, and filling the dividing joints and recessed straight joints completely with bitumen. The unit price also includes and is charged with all required excavation and backfilling works, making scaffolds, supply and workmanship. The unit price is given by one square meter.	Sq.m	5,700		
CC-0320	Ladder Rung & Miscellaneous Steel Supply and Install Steel Works , required for ladder rung, safety rack, fences, emergency gates, parapets, navy stairs, shades and the like, according to the approved drawings, general and special conditions and instructions. The unit price includes fixing works in walls and concrete, as well as painting -works by approved recent painting materials. The unit price is to given by one ton of the actual weights provided that they should not exceed	t	1		

Bill of Quantities

Pay Item	Description	Unit	Quantity	Unit Price L.E	Amount Egyptian Pound
CC-0320	the Standard Works according to Steel Works Specifications.				
CC-0321	<p>Additional Reinforcement (High tensile steel bars with protrusions No. 52) Supply, Operating, Cutting and Installing Additional Reinforcement Steel Bars for the Concrete, whose design and execution necessitate placing or adding them to change the rate of reinforcement steel bars, other than what is mentioned in the drawings, from the allowed diameters.</p> <p>The unit price includes and is charged with cleaning the steel bars from impurities such as grease, paints and crusty rust. It will be bent without heating to form it according to the drawings and instructions. The unit price includes and is charged with workmanship, installation, and tying up according to the drawings, instructions and specifications. The unit price is given by one ton.</p>	t	50		
CC-0322	<p>Laterite Paved Road (0.25m thick Laterite Pavement) By Square Meter, Supply and Making Supporting Layer for Embankments, and roads of laterite soil with a thickness of 25 cm.</p> <p>The unit price includes and is charged with transport, supply, spreading, spraying with water, leveling and crushing by a steam roller weighing 10 tons, or by steam roller vibrator, and continuing maintenance works till handing over of the works. Work will be done according to the lengths and widths determined by the NSDO, and pursuant to the Specifications of Roads and Bridges Department.</p> <p>The unit price also includes and is charged with all what is required of tests regarded by the NSDO as required for verifying the suitability of the layer after crushing, according to the specification and conditions. The unit price will be given by square meter.</p>	Sq.m	189,000		
CC-0323	<p>Surface Course of Asphalt Paved Road (Asphalt Concrete of 5cm thick) Supply and making a premixed asphalt concrete layer without painting, with a thickness of 5 cm after compaction, at the road width, according to the instructions, drawings and specifications, by using tips of solid stones resulting from the crushing process of crushers, which sticks thoroughly to the</p>	Sq.m	182,000		

Bill of Quantities

Pay Item	Description	Unit	Quantity	Unit Price L.E	Amount Egyptian Pound
CC-0323	<p>asphalt, and using solid asphalt (60/70) Production of Suez or Alexandria Petroleum Company, corresponding to the Standard Specifications of Road Department.</p> <p>The unit price includes mixing by mechanical mixers while asphalt is in a suitable temperature, transport, spreading and compaction, provided that the surface to be paved must be cleaned before spreading and using the steamrollers to reach the maximum possible density. The unit price is given by square meter.</p>				
CC-0324	<p>Prime Coat</p> <p>Supply and Making Initial Painting Coat (Prime) (MCO), over a base layer with asphalt paint, having a medium volatility (O.T.Zero), at a rate of 1.5 Kg/M2 according to the instructions, drawings and specifications.</p> <p>The unit price includes and is charged with supplying the required asphalt as well as all works of workmanship including reshaping the base layer (if needed), and leveling it, and spraying the asphalt within the specified width after heating it at the rate.</p> <p>The unit price includes also and is charged with cleaning the base surface, bringing and operating all machines, equipment, boilers, distributors and all what is required to complete the works according to the specifications, drawings and instructions.</p> <p>The unit price is given by square meter for the surface to be sprayed with asphalt.</p>	Sq.m	182,000		
CC-0325	<p>Upper Subgrade (Macadam Layer of 0.30m)</p> <p>Supply and Making Base Layer of Solid Graded Stones, resulting from the crushing process of crushers with a thickness of 30 cm after compaction, according to the instructions, drawings and specifications.</p> <p>The unit price includes and is charged with supply, workmanship, leveling the base layer, compaction of substances, spreading and mixing them, adding water, mixing, leveling and spreading, and continuing maintenance till the date of initial handing over, or executing the initial painting process.</p> <p>The unit price also includes the required equipment and labor force, and all what is required for completing the work according to the specifications, drawings and instructions.</p> <p>The unit price is given by one square meter.</p>	Sq.m	189,000		

Bill of Quantities

Pay Item	Description	Unit	Quantity	Unit Price L.E	Amount Egyptian Pound
CC-0326	<p>Lower Subgrade (0.25m thick Laterite Pavement) By Square Meter, Supply and Making Supporting Layer for Embankments, and roads of laterite soil with a thickness of 25 cm. The unit price includes and is charged with transport, supply, spreading, spraying with water, leveling and crushing by a steam roller weighing 10 tons, or by steam roller vibrator, and continuing maintenance works till handing over of the works. Work will be done according to the lengths and widths determined by the NSDO, and pursuant to the Specifications of Roads and Bridges Department. The unit price also includes and is charged with all what is required of tests regarded by the NSDO as required for verifying the suitability of the layer after crushing, according to the specification and conditions. The unit price will be given by square meter.</p>	Sq.m	189,000		
CC-0327	<p>Kilometer Sign Supply and Fix Kilometer Signs according to the specifications and drawings.</p>	No.	15		
CC-0328	<p>Excavation of Pits for Planting Trees Digging Pits with Diameter 50 cm and Depth of 50 cm for Planting Trees, on both sides of the roads or the places to be defined by the NSDO, according to the drawings, and instructions, provided that the pits line is straight and parallel to the road edge exactly, or with the engineering shape requested by the NSDO. The number of pits should be 1000 (One Thousand) pits in each linear kilometer for the one row. The unit price includes and is charged with leveling the soils - the outcome of excavation, and moving them outside the pits. The unit price is to be given including everything by one linear kilometer for the one row of pits.</p>	Km	148		
CC-0329	<p>Supply of Clayey Soil for Pits Supply Agricultural Clay Free from Salt and Harmful Materials for the growth of plants and free from the seeds of harmful gross, or any other impurities. The rate of clay therein should not be less than 70%, from a known source to be approved by the NSDO, and filling each of the pits mentioned in the previous item to the higher level of the pit.</p>	Km	148		

Bill of Quantities

Pay Item	Description	Unit	Quantity	Unit Price L.E	Amount Egyptian Pound
CC-0329	The unit price is given including everything by a longitudinal kilometer for the one row of pits.				
CC-0330	Plantation of Gasuarina Trees Supply and Planting Transplants of Gasuarina , whose green part with a height of at least 70 cm and less than or equal to 90 cm, measured from the surface of soil of the plastic bags containing the transplant, provided that it has a well growing capability to be accepted by the NSDO. These transplants will be planted inside the pits mentioned in the previous items. The unit price will be given including everything by one linear kilometer for the one row, or at a rate of 500 transplants in one linear kilometer of the one row.	Km	92		
CC-0331	Plantation of Acacia Trees Supply and Planting Acacia Transplants for Fixing Sand Dunes , the green part of it with a height of at least 40 cm and less than or equal to 70 cm, measured from the soil surface of the plastic bags containing the transplant, and provided that they have a well growing capability to be accepted by the NSDO. These transplants will be planted alternately with the Gasuarina trees inside the pits mentioned in the previous items. The unit price will be given including everything by linear kilometer for the one row, at a rate of 500 transplants in the linear kilometer for the one row.	Km	56		
CC-0332	Care of Trees Irrigation Works, Service Care and Protection for the Planted Transplants , including replacement of damaged transplants with others new, one by one. It also includes adding fertilizers, maintenance and guarding works. The unit price is given inclusive by linear kilometer for the one row for each year as of the completion of planting the kilometer.	Km	148		
CC-0333	Drip Irrigation Systems for Pay Item Nos. CC-0330 and CC-0331 Supply and Install Drip Irrigation System , according to the instructions. The unit price includes and is charged with all works required to complete such process perfectly, as well as all what is required of workmanship and tests. The NSDO must be provided with a sample and drawings to approve it before supplying and installing	L.S.	1		

Bill of Quantities

Pay Item	Description	Unit	Quantity	Unit Price L.E	Amount Egyptian Pound
CC-0333	The unit price is to be given by one system.				
CC-0334	<p>Marble Staff Gauge</p> <p>Supply and Install Marble Scales of Measurement, type Karara, 15 cm wide, and a thickness of at least 2 cm, of the best qualities and at the determined levels, and according to the instructions.</p> <p>The unit price includes fixing the scales of measurement with cement and sand mortar at a rate of 700 Kg ordinary Portland cement to one cubic meter sand.</p> <p>The unit price also includes and is charged with supply, install marble squares with spots which indicate complete meters and half meters according to the instructions. The unit price is to be given by one linear meter.</p>	m	48		
CC-0300	Total				

Declaration By the Contractor

I certify that I reviewed the maps and drawings album concerning this Contract and inspected work locations - the subject of this Contract as they exist, and verified the nature of land and work, as well as the area conditions and all statements required for the completion of work. Also, I studied the items of the General Contract of the Ministry - Form No. 2333 B in due time, the special conditions, the main bill of quantities, and the annex of bill of quantities and developed my unit prices on this basis, and on my responsibility.

Furthermore, I accept the State Council amendments.

The Contractor

Undersecretary for
For Studies, Specifications and Designs
Engineer/ (Mohammed Nasser Ahmed Nassar)